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|-------------------------------|------------------------|---------------------|--|
| <b>Notice of Allowability</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                               | 10/659,628             | GUPTA ET AL.        |  |
|                               | Examiner<br>Le H. Luu  | Art Unit<br>2141    |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to papers filed from 09/10/03 - 12/15/03.
2.  The allowed claim(s) is/are 1-20.
3.  The drawings filed on 10 September 2003 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
 of the:
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

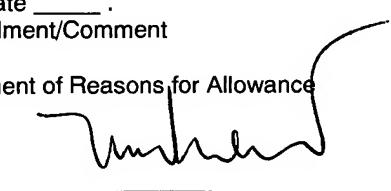
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 09/10/03
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.



LE HIEN LUU  
PRIMARY EXAMINER

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1. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the Issue Fee.

2. Pursuant to MPEP 606.01, the title has been changed to read:

-- A DATABASE BACKUP SYSTEM USING DATA AND USER-DEFINED ROUTINES REPLICATORS FOR MAINTAINING A COPY OF DATABASE ON A SECONDARY SERVER --

3. The following is an Examiner's Statement of Reasons for Allowance:

Pruet, III, Pub. No. 2004/0158588, teaches critical database server includes a primary server supporting a primary database instance and a secondary server supporting a secondary database instance that mirrors the primary database instance. The secondary server generates an acknowledgment signal indicating that a selected critical database transaction is mirrored at the secondary database instance. A data replicator communicates with the critical database server and other servers to replicate the selected critical database transaction on at least one of said plurality of other servers responsive to the acknowledgment signal. The primary server supports a primary database instance that includes a primary database instance log file. The secondary server supports a secondary database instance that includes a secondary

instance log file. A plurality of other servers each support a database instance. A highly available data replication component communicates with the primary and secondary servers to transfer primary database instance log file entries from the primary server to the secondary server. The secondary server produces an acknowledgment indicating that the transferred log file entries have been received. A logical data replication component communicates with the primary server and the other servers to identify a log record in the primary database instance log file, construct a replication transaction corresponding to the identified log record, and, responsive to the highly available data replication component indicating that the identified log record has been received at the secondary server, cause one or more of the other servers to perform the replication transaction. Bousfield et al., Pub. No. 2003/0120635, teach a database system includes a memory device for storing user-defined routine libraries and a working memory for storing working copies of the user-defined routine libraries. The prior art of record teaches the claimed invention substantially as discussed above, but it fails to teach or suggest individually or in combination that a user-defined routines replicator in operative communication with the primary and secondary servers to copy user-defined routines deployed on the primary server to the secondary server and to deploy the copied user-defined routines on the secondary server as set forth in claims 1-20. Claims 1-20 are allowed because of the combination of other limitations and the limitation listed above.

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4. Examiner interprets the limitation "an article of manufacture comprising one or more program storage media readable by a computer" as a device that stores computer instructions and participates in providing the computer instructions to a computer processor for execution. The article of manufacture includes non-volatile media, volatile media, computer storage devices and memories. For example, optical or magnetic disks, ROMs, PROMs, EPROMs, EEPROMs, RAM, hard disks, CDs, DVDs. The article of manufacture does not include acoustic or electromagnetic waves, such as those generated during radio-wave, infra-red, and optical data communications.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Le H. Luu whose telephone number is 571-272-3884. The examiner can normally be reached on 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

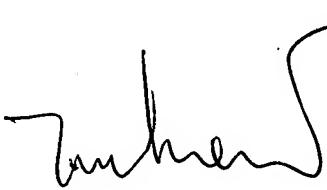
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LE HIEN LUU  
PRIMARY EXAMINER